REVIEW

by Prof. Elena Mladenova Shipkovenska, MD, Ph.D.

Member of the Scientific jury, following an order No P-109-162/14.04.2022 of the Rector of MU-Varna

Concerning: Academic position competition for the position of a "Professor" in the field of higher education 7. Healthcare and sport, professional field 7.1. Medicine, scientific specialty "Social Medicine and Organization of Health Care and Pharmacy"

The competition for the academic position "Professor" in the scientific specialty "Social Medicine and Organization of Health and Pharmacy" was announced in SG, Issue 14/18.02.2022 for the needs of the Department of Social Medicine and Organization of Healthcare, Faculty of Public Health of Medical University "Prof. Dr. Paraskev Stoyanov", Varna.

Only one candidate participates - Assoc. Prof. Klara Georgieva Dokova, MD, Ph.D.

ACADEMIC DEVELOPMENT OF THE CANDIDATE

- Assoc. Prof. K. Dokova, MD graduated from the Medical University of Varna in 1994.
- Obtained a second master's degree in Public Health from the University of Maastricht, the Netherlands in 1997.
- From 2000 to 2009 he was a PhD student in the Faculty of Health Sciences, specialty "Social Medicine and Organization of Health and Pharmacy", Medical University of Varna.
- Passed consecutively all degrees of assistant in the Department of Social Medicine and Organization of Health Care at the University, MU-Varna (from 2001 to 2012)
- Holds an academic and scientific PhD degree since 2009.
- In 2012 she was elected Associate Professor.
- Assoc. Prof. Dokova has a recognized specialty in "Social Medicine and Health Care Organization" (1999).

- She has passed through various forms of postgraduate qualifications and specializations at home and abroad, among which the most important are the courses in epidemiology and biostatistics in Berlin, Krakow, Prague and Cambridge.
- In the period 2014-2018 she was elected Deputy Dean of the Faculty of Public Health at the Medical University of Varna.
- From 2018 until 2020 she was the Dean of the Faculty of Public Health at the Medical University of Varna.
 - Winner of the Pythagorean Science Prize for 2020.
 - Fluent in English and Russian. She has high computer literacy.

The information about the candidate's career development shows high qualifications, rich organizational experience, managerial skills and focused pursuit of professional development.

REQUIREMENTS RELATED TO RESEARCH ACTIVITIES

Assoc. Prof. Dokova presented all the necessary documents for the competition, in accordance with the Law For The Development Of Academic Staff In The Republic Of Bulgaria and the Regulations for its implementation.

Table Number of points by indicators

Group of indicators	Indicator	Units points
Criterion A	Indicator 1. Dissertation work for awarding PhD degree	1 unit. 50 points
Criterion B	Indicator 3.Monograph/Habilitation work	1 Unit 100 points
Criterion Γ	Indicator 7. Publications in scientific journals, referenced and indexed in world-renowned databases of scientific information	15 Units
	Indicator 8. Publications in peer-reviewed journals not referenced in world-renowned scientific information databases	28 Units
	Indicator 9. Published chapter of a collective monograph in Eng.	1 Unit
Criterion E	Indicator 20. Published university textbook	1 Unit
Total points . Γ 5-9		341.19 points
	IF of works, according to academic record	1307.034 points

The scientific papers (47 in total) are arranged according to a model proving the fulfillment of the minimum requirements for holding the academic position of "Professor".

The distribution of scientific works according to the place of the candidate in the authors teams shows that she is an independent or first author in 1/4 of the publications. Most of the collective works in which she participates are of a complex nature and this fact leads to the need for larger research teams.

The scientific activity of Assoc. Prof. Dokova includes:

- Participation as a member in 2 national research projects and in 4 international ones.
- Management of 2 national research projects and management of the Bulgarian team in the international project "Empowering service users through support and involvement (ESSI)" Erasmus Intensive Program ".
- 12 participations in international scientific forums, 18 participations in national congresses and conferences.
- Membership in authoritative societies: of the European Public Health Association, International Epidemiological Association, European Stroke Organization, Bulgarian Medical Union. She is a contributor to the Global Burden of Disease Study, the WHO Regions of Health Network "Focal Point" for the Varna Region.
- Member of the editorial boards of: Journal of Social Medicine and Scripta Scientifica Salutis Publicae.

From the provided reference with positive citations it can be seen that the scientific production impact is significant and confirms her contribution. The actual citations according to the Web of Science amount to 15,000 volumes. The candidate has created a profile in "ResearchGate", where there is international visibility for her work in Bulgarian and foreign journals, an indicator of her publishing image and relevance of the topic.

Impact factor: IF - 1307.034

The report shows that the works presented by Assoc. Prof. K. Dokova, MD, Ph.D, in scientometric aspect exceed many times the minimum requirements of Law For The Development Of Academic Staff In The Republic Of Bulgaria.

THEMATIC ORIENTATION OF SCIENTIFIC PRODUCTS AND CONTRIBUTIONS

The publications presented by Assoc. Prof. Dokova, MD are thematically grouped in the following 4 scientific fields:

First strand "Assessment of public health and health inequalities through indicators of morbidity, mortality and burden of disease ": (A1, B3, Γ 7.2, Γ 7.3, Γ 7.4, Γ 7.5, Γ 7.6, Γ 7.7, Γ 7.9, Γ 7.11, Γ 7.12, Γ 7.13, Γ 7.14, Γ 7.15, Γ 8.1, Γ 8.2, Γ 8.3, Γ 8.4, Γ 8.11, Γ 8.12, Π 1, Π 5)

Studies in this area show the author's signature style. Scientific works are characterized by thoroughness and innovation of theoretical generalizations and methodological approaches, the formulation and proof of scientific hypotheses. The main contribution is the consistency and systematic research, which began with the development of a dissertation on "Awareness, treatment and control of blood pressure among the rural population", continued with the accumulation of new and more diverse epidemiological knowledge and graduated with a precise measurement of public health – the Monographic work "Studies of the burden of disease"

Among the contributions in this direction, I would like to highlight those that are of an *original nature*:

- For the first time a methodology for correction of regression-dilution error on blood pressure data was applied and an analysis of the control of arterial hypertension was made in a representative study for the rural population, depending on the individual cardiovascular risk.
- The first quantitative measurement of salt intake in Bulgaria was performed by testing 24-hour urine for nitrogen (N), sodium (Na) and potassium (K). High salt consumption has been proven in the population.

- A historical review of the development of the summary indicators for public health assessment has been made and for the first time the new summary indicators for "burden of disease" assessment have been applied in our country DALY, YLL, YLD.
- Health losses related to hypertension, stroke, cancer, diabetes and kidney disease in Bulgaria for the period 1990-2019 were assessed.
- Valuable regional and international comparisons have been made on health inequalities and burden of disease between Western and Eastern Europe.
 - It has been shown that reducing salt consumption leads to a reduction in disease burden by affecting systolic blood pressure.
 - Trends in population health and the main health risk drivers at local, regional, national and global levels are analyzed.

The monograph "Analysis of the Burden of Disease" presents an indepth, professionally sound comparative analysis of the global burden of diseases, injuries and risk factors in 204 countries and territories around the world. For this purpose, for the first time, the new summary indicators for disease burden assessment - DALY, YLL, YLD for the period 1990-2019 - have been applied in practice. The dynamic indicators for life expectancy and life in good health, depending on gender, are presented.

The monograph skillfully discusses a multifaceted problem that is of high practical importance for public health. Through this work the candidate presents herself as one of the leading strategic analysts in our country on the problems of public health and health inequalities, looking for the interrelations of the health system in the broader context of the social macrosystem.

The second scientific field "Disease prevention and health promotion" $(\Gamma7.8, \Gamma8.5, \Gamma8.7, \Gamma8.8, \Gamma8.9, \Gamma8.13, \Gamma8.14, \Gamma8.15, \Gamma8.17, \Gamma9.1)$

Contributions in this area are related to emphasizing the importance of health for people and opportunities to strengthen personal and public health through health literacy and targeted preventive action.

- Competently and critically examined the world and our experience and ways of practical implementation of the concept of health promotion by building and establishing a global network of "universities for health", "places for health promotion" and others.
- The main challenges to the healthcare system have been identified and an attempt has been made to synchronize different approaches to providing adequate health care in early childhood and social change in the care of people with disabilities.

The third scientific field "Medical Sociology" (Γ8.4, Ε20, Π3, Π8, Π9, Π10)

The textbook on Medical Sociology is included in this area. It analyzes the main sociological theories (according to the British Medical Council), which are used in the analysis of behavior related to health and disease and its relationship to social structure and context.

- Socio-psychological models applied to study the impact on healthrelated behavior are evaluated.
- The professional satisfaction of various health professionals has been studied.

The fourth scientific field "Training of specialists in the field of public health": $(\Gamma 7.1, \Gamma 7.6, \Gamma 8.6, \Gamma 8.10, \Gamma 8.18, \Pi 6)$

The profile of public health specialists and the areas for their implementation have been clarified. The characteristics of the educational process in the medical higher school have been studied. The contributions in this direction are aimed at:

- Justification of the objective need for a new type of specialists with a bachelor's degree in Public Health in Bulgaria, in accordance with European standards.
- The sociological view of the specifics of the medical profession and the need for teamwork in the work of various specialists is presented.
- Modern developments for public health training in the degree of Bachelor and Assistant Pharmacist have been created, corresponding to the competencies of the respective health professions.

As a summary of all scientific papers presented by Assoc. Prof. Dokova, it is worth emphasizing that they are prepared very carefully, supported by relevant tabular material and graphic images, appropriate and properly organised bibliography.

The great diversity of the topics of the scientific works corresponds to the main areas of the scientific specialty. Most publications reflect the author's many years of work and experience. The methods of systematic analysis, documentary method, sociological, modern statistical and epidemiological methods are widely used in the research.

The author's ability to plan and organize research, to make in-depth analyses and to draw convincing conclusions in the field of organization and management of health care and applied epidemiology, is worthy of praise.

EVALUATION OF LEARNING AND TEACHING ACTIVITY

- Assoc. Prof. Dokova has a total teaching experience of over 20 years. She conducts training of students in the following disciplines: Social Medicine and Biostatistics; Introduction to epidemiology; Applied epidemiology and health promotion; Medical sociology; Sociology of health and disease; Medico-social aspects of disabilities; Public health indicators and assessment; Introduction to public health.
 - Speciality training courses: Design of research and statistical analysis.
- The study load goes beyond the legal requirements and ranges from . 270 to 557 hours for the last 5 years.
 - Assoc. Prof. Dokova develops and participates in the creation, as well as in the subsequent updating of curricula included in her teaching activities.
 - Author of 1 textbook.
 - Under her leadership, 18 graduates successfully obtained a Master's degree and 5 doctoral students successfully graduated.
 - Participates as a member of the scientific jury in competitions for the award of educational and scientific degree "Doctor" and the academic positions "Associate Professor" and "Professor".

Personal impressions

Assoc. Prof. Dr. K. Dokova, MD is an erudite scientist and lecturer with an innovative approach in research and teaching. She is responsible, demanding, principled and modest.

Critical remarks - no.

CONCLUSION

Based on the above, I strongly believe that Assoc. Prof. Dokova fully meets the requirements of Law For The Development Of Academic Staff In The Republic Of Bulgaria, exceeding the qualitative and quantitative indicators for the development of academic staff, specified in the Regulations of MU-Varna for an academic position "Professor".

Given the pedagogical qualities and skills, many years of experience in lecturing students, the high value of scientific achievements, I strongly believe that Assoc. Prof. Klara Georgieva Dokova, MD, Ph.D fully meets all the requirements for acquiring the academic position "Professor" for the needs of the Department of Social Medicine and Organization of Health Care at the Faculty of Public Health, MU - Varna and I express my warm support for her candidacy.

Sofia, 14.06.2022

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